STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0110833
Owner	BFI Waste Systems of Missouri, LLC
Address:	2980 Granger Drive, Springfield, IL 62707
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Backridge Landfill
Facility Address:	26265 Route B, LaGrange, MO 63448
Legal Description:	See Page 2
UTM Coordinates:	See Page 2
Receiving Stream:	See Page 2
First Classified Stream and ID:	See Page 2
USGS Basin & Sub-watershed No.:	See Page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Active Sanitary Landfill SIC #4953
Stormwater Only
Actual flow is dependent upon precipitation.

Leachate cannot be discharged. Stormwater that has come into contact with leachate is considered leachate and cannot be discharged. Leachate and stormwater that has come into contact with leachate must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations and Sanitary Landfill Operating Permit; and Hazardous Waste Program (if applicable).

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

August 1, 2015
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

March 31, 2018
Expiration Date

John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued)

Outfall #001 – Active Sanitary Landfill
Stormwater / Sedimentation Basin
Design flow = 1.74 MGD 10 year, 24 hr. storm
Actual flow is dependent upon precipitation.
Legal Description: NW ¼, SW ¼, NW ¼ Sec. 12, T60N, R6W, Lewis County
UTM Coordinates: X = 626261, Y = 4430384
Receiving Stream: Tributary to Quartz Lake
First Classified Stream and ID: Jasper Lake (L3) (7432)
USGS Basin and Sub-watershed No.: 07110001-1003

Outfall #002 – Active Sanitary Landfill
Stormwater / Sedimentation Basin
Design flow = 2.96 MGD 10 year, 24 hr. storm
Actual flow is dependent upon precipitation.
Legal Description: SE ¼, SE ¼, NE ¼ Sec. 11, T60N, R6W, Lewis County
UTM Coordinates: X = 6262111, Y = 4430301
Receiving Stream: Tributary to Quartz Lake
First Classified Stream and ID: Jasper Lake (L3) (7432)
USGS Basin and Sub-watershed No.: 07110001-1003

Outfall #003 – Active Sanitary Landfill
Stormwater / Sedimentation Basin
Design flow = 3.79 MGD 10 year, 24 hr. storm
Actual flow is dependent upon precipitation.
Legal Description: NE ¼, NE ¼, NE ¼ Sec. 11, T60N, R6W, Lewis County
UTM Coordinates: X = 6262178, Y = 4430842
Receiving Stream: Tributary to Jasper Lake
First Classified Stream and ID: Jasper Lake (L3) (7432)
USGS Basin and Sub-watershed No.: 07110001-1003

Outfall #004 – Active Sanitary Landfill
Stormwater from soil borrow area / Sedimentation Basin
Design flow = 2.26 MGD 10 year, 24 hr. storm
Actual flow is dependent upon precipitation.
Legal Description: SW ¼, SE ¼, NE ¼ Sec. 11, T60N, R6W, Lewis County
UTM Coordinates: X = 625999, Y = 4430240
Receiving Stream: Tributary to Quartz Lake
First Classified Stream and ID: Jasper Lake (L3) (7432)
USGS Basin and Sub-watershed No.: 07110001-1003

OUTFALL #001 - #003	TABLE A-1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective **August 1, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) (Note 1, Page 4)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limits						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Precipitation	inches	*		*	daily	measurement
Biochemical Oxygen Demand$_5$	mg/L	45		30	once/quarter***	grab
Chemical Oxygen Demand	mg/L	90		60	once/quarter***	grab
Total Suspended Solids	mg/L	80		50	once/quarter***	grab
pH – Units	SU	**		**	once/quarter***	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Chloride	mg/L	410		204	once/quarter***	grab
Sulfate	mg/L	410		204	once/quarter***	grab
Benchmarks (Note 2, Page 5)						
Aluminum, Total Recoverable	µg/L	*			once/quarter***	grab
Beryllium, Total Recoverable	µg/L	*			once/quarter***	grab
Chromium (VI), Dissolved	µg/L	*			once/quarter***	grab
Copper, Total Recoverable	µg/L	*			once/quarter***	grab
Cyanide, amenable to chlorination	µg/L	*			once/quarter***	grab
Iron, Total Recoverable	µg/L	*			once/quarter***	grab
Selenium, Total Recoverable	µg/L	*			once/quarter***	grab
Thallium, Total Recoverable	µg/L	*			once/quarter***	grab
Zinc, Total Recoverable	µg/L	*			once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.
** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
*** See table below for quarterly sampling.

Minimum Sampling Requirements		
Quarter	**Months**	**Report is Due**
First	January, February, March	April 28th
Second	April, May, June	July 28th
Third	July, August, September	October 28th
Fourth	October, November, December	January 28th

OUTFALL #001-003	TABLE A-1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective **August 1, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) (Note 1, Page 4)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Monitoring						
Benzene	µg/L	*			once/quarter***	grab
Toluene	µg/L	*			once/quarter***	grab
Ethylbenzene	µg/L	*			once/quarter***	grab
Total Xylene	µg/L	*			once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

OUTFALL #004	TABLE A-1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective **August 1, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) (Note 1, Page 4)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limits						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Total Suspended Solids	mg/L	80		50	once/quarter***	grab
pH – Units	SU	**		**	once/quarter***	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.
** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
*** See table below for quarterly sampling.

Minimum Sampling Requirements		
Quarter	**Months**	**Report is Due**
First	January, February, March	April 28th
Second	April, May, June	July 28th
Third	July, August, September	October 28th
Fourth	October, November, December	January 28th

Note 1 – For flow-through BMPS, all samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a precipitation event does not occur within the reporting period, report as **no discharge**. The total amount of precipitation should be noted from the event from which the samples were collected. For retention BMPs, stormwater samples shall be collected once per quarter when a discharge occurs.

Note 2 - This parameter incorporates a Benchmark Value associated with Best Management Practices (BMPs). See Special Condition #1 for Benchmark Value.

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

Outfall #001-003	
Parameter	**Benchmark**
Aluminum, Total Recoverable	750 µg/L
Beryllium, Total Recoverable	5 µg/L
Chromium (VI), Dissolved	15 µg/L
Copper, Total Recoverable	26 µg/L
Cyanide, amenable to chlorination	22 µg/L
Iron, Total Recoverable	4 mg/L
Selenium, Total Recoverable	5 µg/L
Thallium, Total Recoverable	6.3 µg/L
Zinc, Total Recoverable	209 µg/L

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measurable progress towards achieving the benchmarks is a permit violation.

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

4. Water Quality Standards
   (a) To the extent required by law, Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;

C. SPECIAL CONDITIONS (continued)

(4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
(5) There shall be no significant human health hazard from incidental contact with the water;
(6) There shall be no acute toxicity to livestock or wildlife watering;
(7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
(8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

5. Changes in Discharges of Toxic Substances
The permittee shall notify the Director as soon as it knows or has reason to believe:
(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
(1) One hundred micrograms per liter (100 µg/L);
(2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
(4) The level established by the Director in accordance with 40 CFR 122.44(f).
(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

6. Report as no-discharge when a discharge does not occur during the report period.

7. Reporting of Non-Detects:
(a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
(b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
(c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
(d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
(e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

8. The permittee shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 60 days and implemented within 120 days of permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The permittee shall select, install, use, operate, and maintain the best management practices (BMPs) prescribed in the SWPPP in accordance with the concepts and methods described in the following documents:

Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009. **This manual is available at The USEPA internet site;** and

Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites, (Document number EPA 833-R-06-004) published by the United States Environmental Protection Agency (USEPA) in May 2007. **This manual is available at The USEPA internet site;** and

The latest version of ***Protecting Water Quality: A field guide to erosion, sediment and stormwater best management practices for development sites in Missouri,*** published by the Missouri Department of Natural Resources. This manual is available on the Department's internet site at: http://www.dnr.mo.gov/env/wpp/wpcp-guide.htm

The permittee is not limited to the use of these guidance manuals. Other guidance publications may be used to select appropriate BMPs. However, all BMPs should be described and justified in the SWPPP. EPA and the department continue to update BMP information on their web sites. It is recommended that the permittee review this information when developing a SWPPP.

The purpose of the SWPPP is to ensure the design, implementation, management, and maintenance of BMPs in order to reduce the amount of sediment and other pollutants in storm water discharges associated with landfill activities; comply with the Missouri Water Quality Standards; and ensure compliance with the terms and conditions of this permit.
A copy of the SWPPP must be available on site at all times. The SWPPP must be made available to a Department representative upon request. The SWPPP must incorporate BMPs specific to site conditions and provide for maintenance and adherence to the plan.

C. SPECIAL CONDITIONS (continued)

9. SWPPP Requirements: The following information and practices shall be provided for in the SWPPP.
   (a) Site Description: In order to identify the site, the SWPPP shall include the facility and outfall information provided in the application form.
   (b) The SWPPP: The SWPPP shall have sufficient information to be of practical use to contractors and site construction workers to guide the installation and maintenance of BMPs. Site boundaries and outfalls shall be marked on a site map included as part of the SWPPP.
   (c) Selection Of Temporary And Permanent Non-Structural BMPs: The permittee shall select appropriate non-structural BMPs for use at the site and list them in the SWPPP. For the soil borrow area, the SWPPP shall require existing vegetation to be preserved where practical. The time period for disturbed areas without vegetative cover for the soil borrow area shall be minimized to the maximum extent practicable. For soil borrow area sites that will be inactive six months or more, establishing a vegetative cover is a highly recommended choice for a proper BMP.
   (d) Selection Of Temporary And Permanent Structural BMPs: The permittee shall select appropriate structural BMPs for use at the site and list them in the SWPPP.
   (e) Description Of Best Management Practices: The SWPPP shall include a description of both structural and non-structural BMPs that will be used at the site. The SWPPP shall provide the following general information for each BMP which will be used one or more times at the site:
      i. Physical description of the BMP;
      ii. Site and physical conditions that must be met for effective use of the BMP;
      iii. BMP installation/construction procedures, including typical drawings; and
      iv. Operation and maintenance procedures for the BMP.

   The SWPPP shall provide the following information for each specific instance where a BMP is to be installed:
      i. Whether the BMP is temporary or permanent;
      ii. Where, in relation to other site features, the BMP is to be located;
      iii. When the BMP will be installed; and
      iv. What site conditions must be met before removal of the BMP, if the BMP is not permanent.
   (f) Disturbed Areas: Where soil disturbing activities cease at the soil borrow area for 14 days or more, the permittee shall install BMPs to establish interim stabilization. Interim stabilization shall consist of well-established and maintained BMPs that are reasonably certain to protect waters of the state from sediment pollution over an extended period of time. This may require adding more BMPs to an area than is normally used during daily operations. These BMPs may include, but are not limited to, a combination of sediment basins, check dams, sediment fences, and mulch. The types of BMPs used must be suited to the area disturbed, taking into account the number of acres exposed and the steepness of the slopes. If the slope of the area is greater than 3:1 (3 feet horizontal to 1 foot vertical) or if the slope is greater than 3% and greater than 150 feet in length, then the permittee shall establish interim stabilization within 7 days of ceasing operations on that part of the site.
   (g) Installation: The permittee shall ensure the BMPs are properly installed at the locations and relative times specified in the SWPPP. Storm water discharges from the soil borrow area, which leave the site, shall pass through an appropriate impediment to sediment movement, such as a sedimentation basin, sediment traps, silt fences, etc. prior to leaving the site. The location of all BMPs must be indicated on a site map, included in the SWPPP.
   (h) Additional Site Management Requirements: The SWPPP shall address other BMPs and requirements, as required by site activities, to prevent contamination of stormwater runoff. Such BMPs and requirements include:
      i. Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
      ii. Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
      iii. Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
      iv. Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
      v. A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted to the department upon request.
      vi. Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits.

10. Amending/Updating the SWPPP: The permittee shall amend and update the SWPPP as appropriate during the term of the permit. The permittee shall amend the SWPPP, at a minimum, whenever the:
   (a) Design, operation, or maintenance of BMPs is changed;
   (b) Design of the construction project is changed that could significantly affect the quality of the stormwater discharges;
   (c) Permittee's inspections indicate deficiencies in the SWPPP or any BMP;
   (d) department notifies the permittee in writing of deficiencies in the SWPPP;

C. SPECIAL CONDITIONS (continued)

(e) SWPPP is determined to be ineffective in significantly minimizing or controlling pollutants (e.g., there is visual evidence, such as sediment deposits offsite or into waters of the state, or effluent limit violations);
(f) department determines violations of Water Quality Standards may occur or have occurred.

11. An individual shall be designated by the permittee as responsible for environmental matters. The individual responsible for environmental matters shall have a thorough and demonstrable knowledge of the site's SWPPP and sediment and erosion control practices in general. The individual responsible for environmental matters or a designated inspector knowledgeable in erosion, sediment, and stormwater control principles shall periodically inspect all structures that function to prevent pollution of waters of the state.

12. Site Inspections Reports: Regularly scheduled inspections shall be conducted at least once per week. These inspections shall be conducted by the person responsible for environmental matters at the site, or a person trained by and directly supervised by the person responsible for environmental matters at the site. All installed BMPs and other pollution control measures shall be inspected for proper installation, operation, and maintenance. All stormwater outfalls shall be inspected for evidence of erosion or sediment deposition. Petroleum storage tanks shall also be visually inspected to identify problem areas that could lead to a leak. Identified problems should be repaired immediately. Any structural or maintenance problem shall be noted in an inspection report and corrected within seven calendar days of the inspection. If weather conditions make it impossible to correct the problem within seven days, a detailed report, including photographs, must be filed with the regular inspection reports. The permittee shall correct the BMP problem as soon as weather conditions allow.

    A log of each inspection and copy of the inspection report must be retained onsite and made available to the department upon request. The inspection report is to include the following minimum information: inspector's name, date of inspection, observations relative to the effectiveness of the BMPs, actions taken or necessary to correct the observed problem, and listing of areas where land disturbance operations have permanently or temporarily stopped. The inspection report shall be signed by the person designated in the SWPPP to conduct the inspections. Inspection reports must be kept on site with the SWPPP.

13. Records: The permittee shall retain copies of this permit, the SWPPP, all amendments to the SWPPP, results of monitoring and analysis, and all site inspection records required by this permit. The records shall be accessible during normal business hours. The records shall be retained for a period of five years. The permittee shall provide a copy of the SWPPP to the department on request. The permittee shall provide those who are responsible for installation, operation, or maintenance of any BMP a copy of the SWPPP.

14. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.

15. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.

16. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request

17. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. On-site remediation may take place prior to testing. If the presence of hydrocarbons is indicated, this water must be tested for Total Petroleum Hydrocarbons (TPH). The analytical method for testing TPH must comply with EPA approved testing methods listed in [40 CFR 136] and the water must be tested prior to release to ensure compliance with water quality standards. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.

18. In support of the alternative iron benchmark implemented in this permit, the facility shall submit the following items:

    (a) No later than one year from effective date of this permit; the facility shall submit a practicable work plan to identify accessible, and representative sampling locations to evaluate iron concentrations in the receiving water body as well as background storm event iron concentrations upstream of the facility or in a representative watershed, if there is no upstream flow. The work plan is expected to include one background and one downstream monitoring site. The work plan shall be submitted to the Operating Permits Section at P.O. Box 176, Jefferson City, MO 65102 and the Northeast Regional Office at 1709 Prospect Drive, Macon, MO 63552.

    (b) If sufficient background and receiving water iron data already exists, the facility may submit these data, in a report, as a potential alternative to watershed monitoring requirements. Such data report shall be submitted within the work plan required in Item 1(a).

    (c) Results of the approved iron study shall be submitted with the renewal application 180 prior expiration of this permit.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
INDUSTRIAL STORMWATER RUNOFF FROM LANDFILL ACTIVITIES
FOR THE PURPOSE OF RENEWAL OF
MO-0110833
BACKRIDGE SANITARY LANDFILL

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law (MCWL)" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Fact Sheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Fact Sheet is not an enforceable part of an operating permit.

Part I – Applicability & Facility Description

Landfill are to obtain a MSOP in accordance the MCWL, documented above, and its implementing regulations 10 CSR 20-6.010(1)(A); 10 CSR 20-6.010(5)(A); and 10 CSR 20-6.200(1)(A). Stormwater runoff from landfills are considered Industrial activities in accordance with 10 CSR 20-6.200(2)(B)3.B. Closed landfills may also be required to maintain a MSOP in accordance with 10 CSR 20-6.200(1)(B)10.

Facility Description: Active sanitary landfill with stormwater discharges only. SIC 4953
All leachate and gas condensate is pumped to the leachate tank and hauled offsite. This site does not do waste stabilization or generate laboratory derived wastewater. Equipment that has come in contact with waste (i.e. compactor) is washed at or near the working face of the landfill and goes down into the leachate system and then makes its way to the tank.
Leachate must be handled in a manner where discharge is not allowed and in accordance with Hazardous Waste Program (if applicable) and Solid Waste Management Program requirements.

Have any changes occurred at this facility or in the receiving water body?
- Yes; receiving streams listed in the previous permit were incorrect. The permit writer contacted the facility to obtain flow maps for this discharge and has corrected the receiving water bodies to reflect actual flows. Stormwater from the landfill flows under State Route B into Wakonda State Park. Outfalls 001, 002 and 004 flow into the unclassified Quartz Lake, which flows into Jasper Lake. Outfall 003 flows through a field and directly into Jasper Lake. Jasper Lake flows into Agate Lake. Water eventually leaves Agate Lake on the east edge of the Park via a ditch that flows to the Mississippi River.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	1.74	BMPs - Sedimentation Basin	Stormwater
#002	2.96	BMPs - Sedimentation Basin	Stormwater
#003	3.79	BMPs - Sedimentation Basin	Stormwater
#004	2.26	BMPs - Sedimentation Basin	Stormwater

* - BMP means Best Management Practices

Water Quality History:
There are no studies available documenting the quality of the receiving water body. Special condition #18 requires the permit to assess background concentrations of iron in the watershed for comparison to receiving water body iron concentrations. Instead of establishing sampling locations in the permit, the permittee is given time to develop and propose a work plan to collect local data. This data will be used to determine whether the alternative iron target of 4 mg/L is sufficiently protective of water quality standards instream.

Comments:
During the previous permit cycle the facility documented occasional exceedances of BOD, COD and TSS at outfalls #001-003, as well as two TSS exceedances at outfall #004. However, it appears that overall the discharge can be deemed compliant with the limitations for those parameter limitations during the previous permit cycle. Exceedance of these conventional pollutants seems to be addressed through BMP maintenance and improvement. Iron exceedances at #001- 003 have been much more common, recorded 19 times on DMRs. BFI has requested that the department review the feasibility of that limit during this permit renewal, see Part IV of this fact sheet for further discussion. Overall, the facility complied with quarterly monitoring requirements during the previous permit cycle and demonstrated that many of the pollutants of concern included in the previous permit are not present in detectable concentrations or concentrations that exceed the water quality standards.

Part II – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:
As per Missouri's Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

All Other Waters: ☒

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
#001	Tributary to Quartz Lake	NA	--	General Criteria	~1.1 mi.	071100011003
#002	Tributary to Quartz Lake	NA	--	General Criteria	~1.9 mi.	
#003	Tributary to Jasper Lake	NA	--	General Criteria	~1.3 mi.	
#004	Tributary to Quartz Lake	NA	--	General Criteria	~2 mi.	
#001-#004	Jasper Lake	L3	7432	AQL, IRR, LWW, SCR, WBC-B, HHP	NA	

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW), Human Health Protection (HHP).

Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions

ANTI-BACKSLIDING:
A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

☒ - Backsliding proposed in this Factsheet for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

- Monitoring requirements were removed for all parameters for which the department could determine that the discharge has not demonstrated reasonable potential to exceed water quality standards. See Part IV of this fact sheet for a detailed list.

✓ A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy.

- The iron limitations of 1639 µg/l daily maximum and 817 µg/l monthly average have been replaced with a benchmark of 4 mg/L. The previous permit limits were established in error, with limits calculated using EPA's Technical Support Document (TSD). The TSD was developed primarily for continuous discharges and this facility has intermittent stormwater discharges. This renewal establishes limits appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions are protective of the applicable water quality standards. See Part IV of this fact sheet for the discussion of the derivation of the iron benchmark.

ANTIDEGRADATION:
In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

☒ - Renewal no degradation proposed and no further review necessary.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

☒Not Applicable; The permittee/facility is not currently under Water Protection Program enforcement action.

FLOW BASED PERMITTING:
A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on similar climatic conditions, size of watershed, and amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc.

It is likely that sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except Ammonia, which is based on a thirty day exposure). In the event that discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(3) and (4)]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above that staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis and calculate Wasteload Allocations via a mass-balance equation for effluent limit determination. However, staff may use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

SCHEDULE OF COMPLIANCE (SOC):
A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

☒ Not Applicable; This permit does not contain a SOC.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):
In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities: (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002), BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of stormwater discharges.

☒ Applicable; A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

SPILL REPORTING:
Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

VARIANCE:
As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

☒ Not Applicable; This operating permit is not drafted under premises of a petition for variance.

WLA MODELING:

☒ Not Applicable; A WLA study was either not submitted or determined not applicable by department staff.

WATER QUALITY STANDARDS:
Per [10 CSR 20-7.031(4)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:
A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

☒ Not Applicable; At this time, the permittee is not required to conduct WET test for this facility.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

☒ Not Applicable; This facility does not discharge to a 303(d) listed stream.

Part IV – Effluent Limits Determination

Outfall #001-003 – Effluent Limitation Table:
Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	NO	
RAINFALL	Inches	6	*		*	NO	
COD	mg/L	6	90		60	NO	
BOD_5	mg/L	1/6	45		30	NO	
TSS	mg/L	1/6	80		50	NO	
PH	SU	1/2	6.5 – 9.0		6.5 – 9.0	NO	
SETTLEABLE SOLIDS	mL/L/hr	1/6	1.5		1.0	NO	
OIL & GREASE	mg/L	1/2	15		10	NO	
CHLORIDE	mg/L	1/2	410		204	NO	
SULFATE	mg/L	1/2	410		204	NO	
ALUMINUM, TR	µg/L	1/2/6	*			YES	BM
BERYLLIUM, TR	µg/L	1/2/6	*			YES	BM
CHROMIUM (VI), DISSOLVED	µg/L	1/2/6	*			YES	BM
COPPER, TR	µg/L	1/2/6	*			YES	BM
IRON, TR	µg/L	1/2/6	*			YES	1639/817
SELENIUM, TR	µg/L	1/2/6	*			YES	BM
THALLIUM, TR	µg/L	1/2/6	*			YES	BM
ZINC, TR	µg/L	1/2/6	*			YES	BM
BENZENE	µg/L	1/2/6	*			NO	
ETHYLBENZENE	µg/L	1/2/6	*			NO	
TOLUENE	µg/L	1/2/6	*			NO	
XYLENE	µg/L	1/2/6	*			NO	

* - Monitoring requirement only
** - Parameter not previously established in previous state operating permit.
TR –Total Recoverable
BM – Benchmark implemented this permit cycle

Basis for Limitations Codes:
1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment
7. TMDL or Permit in lieu of TMDL
8. WET Test Policy

OUTFALL #001- #003 – DERIVATION AND DISCUSSION OF LIMITS:

Stormwater Considerations
NPDES stormwater permits must contain conditions that ensure water quality standards are protected. This does not always require the use of numeric water-quality based effluent limitations. Under the Clean Water Act and NPDES regulations, permitting authorities may employ a variety of conditions and limitations in stormwater permits as the necessary water quality based limitations. The EPA's Technical Support Document for Water Quality Based Toxics Control (TSD) establishes a methodology for deriving numeric water quality based effluent limitations; however, it was developed primarily for continuous wastewater discharges at low flow conditions in the receiving water, not intermittent wet weather discharges during high flow conditions. After evaluating the site specific conditions of this facility, the permit writer has used best professional judgment to establish either daily maximum effluent limitations or benchmarks as deemed necessary to protect water quality standards. The limits/benchmarks are established using acute criteria wherever it is available. Chronic criteria are used as a benchmark only when acute criteria are not established. Statistical multipliers derived from the TSD do not apply to this type of discharge, therefore, water quality standards are applied directly.

Effluent Limitation Guideline 40 CFR Part 445 Landfill Point Source Category

The EPA has developed effluent limitation guidelines for wastewater discharges associated with the operation and maintenance of landfills regulated under RCRA Subtitle D, non-hazardous waste landfills. The wastewater flows which are covered by the rule include leachate, gas collection condensate, drained free liquids, laboratory-derived wastewater, contaminated stormwater and contact wash water from truck exteriors and surface areas which have come into direct contact with solid waste at the landfill facility. Drained free liquids are aqueous wastes drained from waste containers or wastewater resulting from waste stabilization prior to landfilling. Contaminated groundwater that is treated and discharged is excluded from this guideline. According to the operator, water from these activities is not discharged at the site, therefore, the ELG does not apply.

AQL – Aquatic Life
DWS – Drinking Water Source
HHF – Human Health Factor

- **Flow**. Monitoring only requirement in accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification to determine an alternate location for flow monitoring.

- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.

- **Biological Oxygen Demand (BOD).** Effluent limitations of 45 mg/L as a Daily Maximum and 30 mg/L as a Monthly Average were met by this facility in the previous permit cycle. BOD is a pollutant of concern associated with landfills identified in both the Landfill Effluent Limitation Guideline and EPA's MSGP. Effluent limitations from the previous permit have been reevaluated and determined to be achievable and protective of the receiving stream.

- **Chemical Oxygen Demand (COD).** Effluent limitations of 90 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are feasible and are consistent with other landfill operating permits. Effluent limitations from the previous permit have been reevaluated and determined to be achievable and protective of the receiving stream.

- **Total Suspended Solids (TSS).** Effluent limitations of 80 mg/L as a Daily Maximum and 50 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations from the previous permit have been reevaluated and determined to be achievable and protective of the receiving stream. This limit is renewed in conjunction with an alternative benchmark for iron and is considered necessary to retain the iron benchmark of 4 mg/L.

- **pH**. Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(5)(E). pH is not to be averaged. Effluent limitations have been retained from previous state operating permit.

- **Settleable Solids**. Effluent limitations of 1.5 ml/L/ hour as a Daily Maximum and 1.0 ml/L/hour as a Monthly Average are applicable and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.

- **Oil & Grease**. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

- **Total Ammonia Nitrogen.** Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 0.1 mg/L to 0.75 mg/L. This is well below the default acute ammonia criteria of 12.1 mg/L.

- **Nitrate as N**. Parameter removed. The drinking water standard does not apply to the receiving stream or first classified water body, and no reasonable potential demonstrated. The data range from 0.05 mg/L to 1.4 mg/L.

- **Chlorides**. Effluent limitations of 410 mg/L as a Daily Maximum and 204 mg/L as a Monthly Average have been retained from previous state operating permit. The original justification for these limitations is unclear; however, they were reviewed and found to be protective of the acute chloride standard of 860 mg/L. These limits were achieved during the previous permit cycle and retained in accordance with antibacksliding regulations.

- **Sulfate**. Effluent limitations of 410 mg/L as a Daily Maximum and 204 mg/L as a Monthly Average have been retained from previous state operating permit. The original justification for these limitations is unclear; however, they were reviewed and found to be protective of the chronic sulfate standard of 250 mg/L. These limits were achieved during the previous permit cycle and retained in accordance with antibacksliding regulations.

- **Fluoride**. Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 0.24 mg/L to 1.2 mg/L.

  Chronic LWW, DWS, and GRW Criteria = 4.0 mg/L

- **Benzene**. All data reported during the last permit cycle was 1 µg/L. This parameter is retained to provide representative monitoring if the facility receives petroleum contaminated soils.

  Chronic HHF WQS = 71 µg/L

- **Ethylbenzene**. All data reported during the last permit cycle was 1 µg/L. This parameter is retained to provide representative monitoring if the facility receives petroleum contaminated soils.

  Chronic AQL WQS = 320 µg/L

- **Toluene.** All data reported during the last permit cycle was 1 µg/L. This parameter is retained to provide representative monitoring if the facility receives petroleum contaminated soils.

  Chronic HHF WQS = 200 mg/L
  Chronic DWS and GRW WQS = 1 mg/L

- **Total Xylene.** This parameter is retained to provide representative monitoring if the facility receives petroleum contaminated soils. The data range from 0.81 mg/L to 3.0 mg/L.

  Chronic DWS and GRW WQS = 10 mg/L

- **Cyanide, amenable to chlorination.** The previous permit had monitoring only for cyanide. Data reported during the previous permit cycle range from .01 µg/L to 19 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the aquatic life standards.

  Acute AQL WQS = 22µg/L
  Chronic AQL WQS = 5 µg/L
  Benchmark = 22µg/L

Soil Contaminants

In 2011 the previous permit was modified to include several new effluent parameters for outfalls #001 and #002 due to the facility placing contaminated soils from a former gas manufacturing plant on the exterior slopes in contact with stormwater. These areas have since been capped with clean soils. Parameters detected in the soils samples and included in the permit for monitoring were: acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, pyrene, cyanide, phenol, 3,4-benzofluoranthene, methylene chloride, tetrachloroethylene and nitrobenzene.

After initial difficulty finding a laboratory capable of detecting down to the water quality standard, the facility complied with the quarterly monitoring requirements for these parameters and demonstrated that there is no reasonable potential to exceed the water quality standard for most of these parameters. Cyanide was detectable in some of the discharges and retained with a benchmark, all other parameters are removed in this renewal.

Metals

Effluent limitations for total recoverable metals were developed using methods and procedures outlined in EPA/505/2-90-001 and "The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion" (EPA 823-B-96-007). General warm-water fishery criteria apply and hardness of 193 mg/L.

Due to the absence of contemporaneous effluent and instream data for total recoverable metals, dissolved metals, hardness, and total suspended solids with which to calculate metals translators, partitioning between the dissolved and absorbed phases was assumed to be minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, partitioning evaluations may be considered and site-specific translators developed.

HARDNESS DEPENDENT METALS	CONVERSION FACTORS ACUTE
Cadmium	0.916
Chromium III	0.316
Copper	0.960
Lead	0.695
Mercury	0.85
Nickel	0.998
Silver	0.850
Zinc	0.980

Conversion factors for Cd and Pb are hardness dependent. Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 193 mg/L.

- **Aluminum, Total Recoverable.** The previous permit had monitoring only for aluminum. Data reported during the previous permit cycle range from 1.7 µg/L to 3,800 µg/L. It is the permit writer's best professional judgment that additional BMPs should be installed and evaluated against the acute standard.

  Acute AQL WQS = 750 µg/L
  Benchmark = 750 µg/L

- **Antimony, Total Recoverable**. Parameter removed. No reasonable potential demonstrated to exceed the HHF WQS at any outfalls. The data range from 0.2 µg/L to 7.5 µg/L. While several numbers exceed the drinking water and groundwater standards, those uses are not applicable to the receiving water body or first classified stream

  Chronic HHF WQS = 4.3 mg/L
  Chronic DWS and GRW WQS = 6 µg/L

- **Arsenic, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 1.7 µg/L to 6.4 µg/L.

  Chronic AQL WQS = 20 µg/L
  Benchmark = 20 µg/L

- **Barium, Total Recoverable.** Parameter removed. The data range from 52 µg/L to 160 µg/L. Neither the drinking water nor groundwater WQS apply to the receiving water body or first classified stream.

  Chronic DWS and GRW WQS = 2,000 µg/L

- **Beryllium, Total Recoverable.** The previous permit had monitoring only for beryllium. Data reported during the previous permit cycle range from 2 µg/L to 5 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the chronic aquatic life standard.

  Chronic AQL WQS = 5µg/L
  Chronic DWS and GRW WQS = 4 µg/L

- **Cadmium, Total Recoverable**. Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 0.05 µg/L to 1 µg/L.

  Acute AQL WQS = e(1.0166*ln193 – 3.062490) * (1.136672 – (ln193*0.041838)
  e2.2876 * 0.916472 = 9.0284 µg/L dissolved cadmium
  Total recoverable conversion = 9.028/0.916 = 9.86 µg/L total recoverable cadmium

- **Chromium (III), Total Recoverable**. Parameter removed. No reasonable potential demonstrated at any outfalls. All data reported during the previous permit cycle were 10 µg/L.

  Acute AQL WQS = e(0.8190*ln193 + 3.725666) * 0.316
  e8.0358 * 0.316 = 976 µg/L dissolved chromium (III)
  Total recoverable conversion = 976/0.316 = 3,088 µg/L total recoverable chromium (III)

- **Chromium (VI), Dissolved** All analytical methods for chromium (VI) inherently only measure dissolved chromium as per 40 CFR 122.45(c)(3), this metal is expressed as dissolved. The previous permit had monitoring only for chromium VI. Data reported during the previous permit cycle range from 10 µg/L to 17 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the acute aquatic life standard.

  Acute AQL WQS = 15 µg/L
  Benchmark = 15 µg/L

- **Cobalt, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. All data reported during the previous permit cycle were 10 µg/L.

  Chronic LWW and GRW WQS = 1,000 µg/L
  Benchmark = 1,000 µg/L

- **Copper, Total Recoverable.** The previous permit had monitoring only for copper. Data reported during the previous permit cycle range from 10 µg/L to 47 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the acute aquatic life standard.

  Acute AQL WQS = e(0.9422*ln193 – 1.7003) * 0.960
  e3.2582 * 0.960 = 24.9630 dissolved copper
  Total recoverable conversion = 24.963/ 0.960 = 26.0027 total recoverable copper
  Benchmark = 26 µg/L

- **Iron, Total Recoverable.** The only water quality standard Missouri has for iron is the chronic AQL WQS = 1,000 µg/L. Current department policy implements acute water quality standards as a benchmark or effluent limit when it is available and in some cases the chronic criterion is applied if feasible and necessary to protect designated uses. In the case of iron, the state has no acute criteria. On behalf of BFI, Geosyntec submitted a review of pertinent literature and other state's regulations to justify the implementation of an alternative iron target. A summary of that review follows.

  Tidball et al. (1984) conducted an element analysis of Missouri's agricultural soils and found that iron was between 0.7% and 5.5% of soil content in Missouri. There is a strong correlation between the concentration of TSS and iron in landfill stormwater discharges. It is common for stormwater discharges to comply with stringent TSS limitations while still exceeding total recoverable iron limitations. If the native soils or soils being applied as cover at a landfill are in the upper range of natural iron soil content of 5.5%, the discharge can be expected to contain approximately 4 mg/L of iron when discharging 50 mg/L of TSS. Further reduction of TSS and iron may require mechanical treatment or land application of the stormwater.

  Only twenty states have adopted any iron criterion. Many of those standards are based on the 1.0 mg/L chronic criterion that was recommended by EPA in the 1976 "Red Book" (EPA 1976). In the Red Book, EPA reviewed studies that showed aquatic life effects over a wide range of iron concentrations and justified the 1.0 mg/L chronic value based on a Colorado stream study that observed the presence of trout and other fish increased when iron concentrations were below 1.0 mg/L. Of the 20 states with iron criteria, Kentucky, West Virginia and Montana have varied from the EPA recommended criteria. Ohio EPA removed iron criteria in 2004 and no longer issues iron limits in NPDES permits.

  Toxicity studies cited by the Electric Power Resources Institute's (EPRI) 2004 technical report "Water Quality Criteria Development for Iron" and EPA's ECOTOX database (ECOTOX 2014) indicate that the geometric mean acute values (GMAV) when exposed to iron is 12.6 mg/L for *Ceriodaphnia dubia* and 18.7 mg/L for *Pimephales promelas*. The University of Kentucky also conducted an iron toxicity study to support the establishment of chronic and acute state water quality standards (Birge 1985). Regarding acute iron toxicity, the study concluded that for protection of aquatic life, the maximum iron concentration should not exceed 4 mg/L and the concentration may be between 1 mg/L and 4 mg/L for up to 96 hours. Kentucky is the only state to have developed an acute iron criterion.

  EPRI also calculated GMAVs for rainbow trout, 18.3 mg/L and brook trout, 0.917 mg/L. Neither of these coldwater fishes is native to Missouri water ways. Rainbow trout are stocked in certain fisheries, but the permit writer is unaware of any brook trout populations in Missouri. The GMAV for brook trout indicates that alternative iron targets for stormwater may not be appropriate for cold water fisheries.

  The permit writer reviewed available iron data for hydrologic unit 07110001. Illinois Environmental Protection Agency collected 47 total recoverable iron samples in the Mississippi River at Quincy, IL from 2000-2013. Quincy is approximately 5 river miles downstream of discharges from the lakes of Wakonda State Park enter the Mississippi River. The average iron concentration found was 2.2 mg/L with a range of 0.92 mg/L to 15.6 mg/L. This data set seems to support the determination that application of a 1 mg/L chronic standard to the discharge is more stringent than natural conditions for this geographic area.

40 CFR 122.44(k) indicates that a BMP-based approach is appropriate where numeric effluent limitations are infeasible. In accordance with the department's current stormwater permitting strategy and EPA stormwater permitting guidance, it is the permit writer's best professional judgment that an iron benchmark of 4 mg/L is both feasible and protective of water quality at this facility. This benchmark is accompanied by a TSS limit of 50 mg/L, combined; it is the permit writer's best professional judgment that all numeric and general criteria are protected. This benchmark may not be acceptable in a coldwater fishery where trout species could be affected. Additionally, the permit requires the permittee to collect site specific data to verify that the 4 mg/L benchmark is sufficiently protecting water quality.

Benchmark = 4 mg/L

- Birge, W.J., Black, J.A., Westerman, A.G., Short, T.M., Taylor, S.B. Bruser, D.M. and Wallingford E.D. 1985. *Recommendations on Numerical Values for Regulating Iron and Chloride Concentrations for the Purpose of Protecting Warmwater Species of Aquatic Life in the Commonwealth of Kentucky.* MOU 5429.
- ECOTOX Release 4.0 U.S. Environmental Protection Agency, accessed December 2014. http://cfpub.epa.gov/ecotox/
- Electric Power Resources Institute (EPRI). 2004. *Water Quality Criteria Development for Iron.*
- Tidball, Ronald, R. 1984. *Geography of Soil Geochemistry of Missouri Agricultural Soils.* Geological Survey Professional Paper 9 54 -H, I.
- USEPA. 1976. *Qulaity Criteria for Water.* EPA PB-263 943.

- **Lead, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 0.1 µg/L to 5 µg/L.

  Acute AQL WQS = e(1.273*ln193 – 1.460448) * (1.46203 – (ln193*0.145712))
  e5.2388 * 0.69523 = 131.038 dissolved lead
  Total recoverable conversion = 131.038/0.695 = 188.544 µg/L total recoverable lead

- **Mercury, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. All data reported during the previous permit cycle were 0.2 µg/L.

  Acute AQL WQS = 2.4 µg/L
  Chronic DWS WQS = 2 µg/L

- **Nickel, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 10 µg/L to 14 µg/L.

  Acute AQL WQS = e(0.8460*ln193 + 2.255647) * 0.998
  e6.7079 * 0.998 = 817.2044 µg/L dissolved nickel
  Total recoverable conversion = 817.204/0.998 = 818.842 total recoverable nickel

- **Selenium, Total Recoverable**. The previous permit had monitoring only for selenium. Data reported during the previous permit cycle range from 1 µg/L to 5.2 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the chronic aquatic life standard.

  Chronic AQL WQS = 5 µg/L
  Benchmark = 5 µg/L

- **Silver, Total Recoverable.** Parameter removed. No reasonable potential demonstrated at any outfalls. The data range from 0.05 µg/L to 3 µg/L.

  Acute AQL WQS = e(1.72*ln193 – 6.588144) * 0.85
  e2.4637 * 0.859 = 9.9860 µg/L dissolved silver
  Total recoverable conversion = 9.986/0.850 = 11.748 µg/L total recoverable silver

- **Thallium, Total Recoverable.** The previous permit had monitoring only for thallium. Data reported during the previous permit cycle range from 0.1 µg/L to 6.9 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the chronic aquatic life standard.

  Chronic HHF WQS = 6.3 µg/L
  Chronic DWS and GRW WQS = 2 µg/L
  Benchmark = 6.3 µg/L

- **Zinc, Total Recoverable.** The previous permit had monitoring only for zinc. Data reported during the previous permit cycle range from 20 µg/L to 340 µg/L. It is the permit writer's best professional judgment that the discharge should continue to be evaluated against a benchmark that is protective of the chronic aquatic life standard.
  Acute AQL WQS = e(0.8473*ln193 + 0.884) * 0.98
  e5.3431 * 0.98 = 204.9740 µg/L dissolved zinc
  Total recoverable conversion = 204.974/0.98 = 209.157 µg/L total recoverable zinc
  Benchmark = 209 µg/L

OUTFALL #004 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow**. Monitoring only requirement in accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification to determine an alternate location for flow monitoring.

- **Total Suspended Solids (TSS).** Effluent limitations of 80 mg/L as a Daily Maximum and 50 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.

- **pH**. Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(5)(E). pH is not to be averaged. Effluent limitations have been retained from previous state operating permit.

- **Settleable Solids**. Effluent limitations of 1.5 ml/L/hour as a Daily Maximum and 1.0 ml/L/hour as a Monthly Average are applicable and are consistent with other landfill operating permits. Effluent limitations have been retained from previous state operating permit.

- **Oil & Grease**. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

Minimum Sampling and Reporting Frequency Requirements all Outfalls.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	once/quarter	once/quarter
RAINFALL	once/quarter	once/quarter
COD	once/quarter	once/quarter
BOD_5	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter
SETTLEABLE SOLIDS	once/quarter	once/quarter
OIL & GREASE	once/quarter	once/quarter
CHLORIDE	once/quarter	once/quarter
SULFATE	once/quarter	once/quarter
ALUMINUM, TR	once/quarter	once/quarter
BERYLLIUM, TR	once/quarter	once/quarter
CHROMIUM (VI), DISSOLVED	once/quarter	once/quarter
COPPER, TR	once/quarter	once/quarter
IRON, TR	once/quarter	once/quarter
SELENIUM, TR	once/quarter	once/quarter
THALLIUM, TR	once/quarter	once/quarter
ZINC, TR	once/quarter	once/quarter

- **Sampling Frequency Justification:**
  Sampling and Reporting Frequency was retained from previous permit.

- **Sampling Type Justification:**
  Grab samples are an appropriate method for collecting stormwater samples.

Part V – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than three years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☒ - The Public Notice period for this operating permit began on May 8, 2015 and ended on June 8, 2015. The permittee commented during the Public Notice period. The following summarizes the comments and department actions.

1. The permittee commented that the page numbers on the permit were incorrect. The department has fixed the formatting and page number.
2. The permittee noted a typographical error on the last page of the permit. A number 1 was listed but not associated with any condition. The department deleted the number 1.

Additionally, department staff noticed a typographical error. Ethylbenzene was incorrectly spelled as ethylene in the permit. However, the factsheet explains that the permittee shall monitor for ethylbenzene. This is consistent with the other petroleum based parameters benzene, toluene and xylene (BTEX).

No other comments were received. The above changes are minor revisions that do not warrant an additional Public Notice period.

DATE OF FACT SHEET: 04/23/2015

COMPLETED BY:

AMANDA SAPPINGTON, CHIEF
INDUSTRIAL PERMIT UNIT
MISSOURI DEPARTMENT OF NATURAL RESOURCES
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions
Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements**.
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

4. **Test Procedures**. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
   a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
   b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1);
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.

c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. **Duty to Reapply.**
   a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
   b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
   c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

RECEIVED AP176085

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT UNDER MISSOURI CLEAN WATER LAW

WATER PROTECTION PROGRAM

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED

Note ► PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- ☐ An operating permit and antidegradation review public notice
- ☐ A construction permit following an appropriate operating permit and antidegradation review public notice
- ☐ A construction permit and concurrent operating permit and antidegradation review public notice
- ☐ A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- ☐ An operating permit for a new or unpermitted facility — Construction Permit # _____
- ☑ An operating permit renewal: permit # MO- 0110833 — Expiration Date 8-13-2014
- ☐ An operating permit modification: permit # MO-_____ — Reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) ☑ YES ☐ NO

2. FACILITY

NAME		TELEPHONE WITH AREA CODE
Backridge Landfill		(573) 655-4240
		FAX (573) 655-4284
ADDRESS (PHYSICAL)	CITY	STATE / ZIP CODE
26265 Route B	LaGrange	MO 63448

3. OWNER

NAME	E-MAIL ADDRESS	TELEPHONE WITH AREA CODE
BFI Waste Systems of Missouri, LLC		(217) 391-0639
		FAX (217) 321-0038
ADDRESS (MAILING)	CITY	STATE / ZIP CODE
2980 Granger Dr.	Springfield	IL 62707

3.1 Request review of draft permit prior to public notice? ☑ YES ☐ NO

4. CONTINUING AUTHORITY

NAME		TELEPHONE WITH AREA CODE
Same as Above		
		FAX
ADDRESS (MAILING)	CITY	STATE / ZIP CODE

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE
Mike Schmitt	NA	(573) 655-4240
		FAX (573) 655-4284
ADDRESS (MAILING)	CITY	STATE / ZIP CODE
26265 Route B	LaGrange	MO 63448

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE WITH AREA CODE
Jeremey Poetzcher	Environmental Manager	(217) 391-0636
		FAX (217) 321-0038

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SW ¼ NW ¼ Sec 12 T 60N R 6W Lewis County
UTM Coordinates Easting (X): 626261.152 Northing (Y): 4430383.967
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SE ¼ NE ¼ Sec 11 T 60N R 6W Lewis County
UTM Coordinates Easting (X): 626110.820 Northing (Y): 4430301.31

003 NE ¼ NE ¼ Sec 11 T 60N R 6W Lewis County
UTM Coordinates Easting (X): 626177.739 Northing (Y): 4430842.125

004 SE ¼ NE ¼ Sec 11 T 60N R 6W Lewis County
UTM Coordinates Easting (X): 625998.741 Northing (Y): 4430240.151

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 4953 and NAICS 562212 002 – SIC 4953 and NAICS 562212
003 – SIC 4953 and NAICS 562212 004 – SIC 4953 and NAICS 562212

NE
Lewis

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION (Complete all forms that are applicable.)

A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).	YES ☑	NO ☐
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES ☐	NO ☑
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES ☐	NO ☑
D.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
E.	Is wastewater land applied? If yes, complete Form I.	YES ☐	NO ☑
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES ☐	NO ☑

9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions. (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

NAME			
SEE ATTACHED			
ADDRESS	CITY	STATE	ZIP CODE

10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE WITH AREA CODE
Dan Winters, General Manager	(217) 391-0636
SIGNATURE: Dan Winters	DATE SIGNED: 2-07-2014

MO 780-1479 (01-09)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- ☐ Appropriate Fees?
- ☐ Map at 1" = 2000' scale?
- ☐ Signature?
- ☐ Form C, if applicable?
- ☐ Form D, if applicable?
- ☐ Form 2F, if applicable?
- ☐ Form I (Irrigation), if applicable?
- ☐ Form R (Sludge), if applicable?

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY

Backridge Landfill

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO-0110833

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 4953 B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) _____1/4 _____1/4 SEC_____ T_____ R_____ See Attached COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
See Attached	

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Sanitary Landfill

Form C - Backridge Landfill Outfall Information

Outfall #001 – Active Sanitary Landfill – SIC #4953
Stormwater runoff / sedimentation Basin
Design flow is 1.74 MGD (10 year, 24-hour rainfall = 4.9 inches, 13.1 acres).
Actual flow is dependent upon precipitation.

Legal Description:	NW ¼, SW ¼, NW ¼, Sec. 12, T60N, R6W, Lewis County
UTM Coordinates:	X=626261.152, Y=4430383.967
Receiving Stream:	Unnamed tributary to Mississippi River (U)
First Classified Stream and ID:	Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.:	(07110001-230001)

Outfall #002– Active Sanitary Landfill – SIC #4953
Stormwater runoff / sedimentation Basin
Design flow is 2.96 MGD (10 year, 24-hour rainfall = 4.9 inches, 20.8 acres).
Actual flow is dependent upon precipitation.

Legal Description:	SE ¼, SE ¼, NE ¼, Sec. 11, T60N, R6W, Lewis County
UTM Coordinates:	X=626110.820, Y=4430301.31
Receiving Stream:	Unnamed tributary to Mississippi River (U)
First Classified Stream and ID:	Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.:	(07110001-230001)

Outfall #003– Active Sanitary Landfill – SIC #4953
Stormwater runoff / sedimentation Basin
Design flow is 3.79 MGD (10 year, 24-hour rainfall = 4.9 inches, 28.5 acres).
Actual flow is dependent upon precipitation.

Legal Description:	NE ¼, NE ¼, NE ¼, Sec. 11, T60N, R6W, Lewis County
UTM Coordinates:	X=626177.739, Y=4430842.125
Receiving Stream:	Unnamed tributary to Mississippi River (U)
First Classified Stream and ID:	Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.:	(07110001-230001)

Outfall #004 – Active Sanitary Landfill – SIC #4953
Stormwater runoff from soil borrow area / diesel storage tank / sedimentation Basin
Design flow is 2.26 MGD (10 year, 24-hour rainfall = 4.9 inches, 17 acres).
Actual flow is dependent upon precipitation.

Legal Description:	SW ¼, SE ¼, NE ¼, Sec. 11, T60N, R6W, Lewis County
UTM Coordinates:	X=625998.741, Y=4430240.151
Receiving Stream:	Unnamed tributary to Mississippi River (U)
First Classified Stream and ID:	Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.:	(07110001-230001)

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, public sewers and outfalls. If a water balance cannot by determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of 1. All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water and storm water runoff. 2. The average flow contributed by each operation. 3. The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
001	Stormwater	Varies	Sediment Basin	1-U
002	Stormwater	Varies	Sediment Basin	1-U
003	Stormwater	Varies	Sediment Basin	1-U
004	Stormwater	Varies	Sediment Basin	1-U

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

☐ **YES** *(COMPLETE THE FOLLOWING TABLE)* ☑ **NO** *(GO TO SECTION 2.50)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(S) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				C. DURATION *(in days)*
				A. FLOW RATE *(in mgd)*		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK *(specify average)*	B. MONTHS PER YEAR *(specify average)*	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

☐ **YES** *(COMPLETE B.)* ☑ **NO** *(GO TO SECTION 2.60)*

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

☐ **YES** *(COMPLETE c.)* ☑ **NO** *(GO TO SECTION 2.60)*

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS *(list outfall numbers)*
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

☐ **YES** *(COMPLETE THE FOLLOWING TABLE)* ☑ **NO** *(GO TO 3.00)*

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS *(OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES)* YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.**

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Chemical Oxygen Demand	Outfall 001, 002, 003 - SW		
Biochemical Oxygen Demand	Outfall 001 & 002 - Stormwater		
Total Suspended Solids	Outfall 001, 003, 004 - SW		
pH	Outfall 001, 002, 003, 004 - SW		
Ammonia as N	Outfall 001, 002, 003 - SW		
Nitrate as N	Outfall 001 & 002 - Stormwater		
Sulfate	Outfall 001, 002, 003 - SW		
Fluoride	Outfall 001, 002, 003 - SW		
Aluminum, Total Recoverable	Outfall 001, 002, 003 - SW		
Arsenic, Total Recoverable	Outfall 002 & 003 - Stormwater		
Barium, Total Recoverable	Outfall 001, 002, 003 - SW		
Chromium (VI), Total Recovera	Outfall 001 - Stormwater		
Copper, Total Recoverable	Outfall 002 - Stormwater		
Iron, Total Recoverable	Outfall 001, 002, 003 - SW		
Nickel, Total Recoverable	Outfall 002 - Stormwater		
Thallium, Total Recoverable	Outfall 002 - Stormwater		
Zinc, Total Recoverable	Outfall 001, 002, 003 - SW		
Cyanide (amenable to chlorinati	Outfall 001 & 002 - Stormwater		
Phenol	Outfall 002 - Stormwater		

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

☐ YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) ☑ NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☑ **YES** *(LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)* ☐ **NO** *(GO TO 3.30)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*
Heritage Environmental Services, LLC	7901 W. Morris St. Indianapolis, Indiana 46231	317-243-8304	All listed in Section 3.00

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Dan Winters, General Manager	(217) 391-0636
SIGNATURE (SEE INSTRUCTIONS)	**DATE SIGNED**
Dan Winters	2-7-2014